Appeal Brief
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Dated: April 23, 2010
Electronic Signature for Charles A. Bieneman: /Charles A. Bieneman/

Docket No.: 00-VE14.10
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Dale L. Bartholomew et al.

Application No.: 09/144,635 Confirmation No.: 5034

Filed: August 31, 1998 Art Unit: 2464

For: SELECTIVE BANDWIDTH CONNECTIVITY THROUGH NETWORK LINE CARDS Examiner: C. Y. Ng

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This Appeal Brief is filed pursuant to 37 C.F.R. § 41.37 (a) in furtherance of the Notice of Appeal filed on February 25, 2010. This Appeal Brief appeals the decision of the Examiner in the Final Office Action dated October 22, 2010 ("Final Office Action"), and the Advisory Action dated February 2, 2010 ("Advisory Action"). This application was filed on August 31, 1998.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

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I. REAL PARTY IN INTEREST

The real party in interest of the present application, solely for purposes of identifying and avoiding potential conflicts of interest by board members due to working in matters in which the member has a financial interest, is Verizon Communications Inc. and its subsidiary companies, which currently include Verizon Business Global, LLC (formerly MCI, LLC) and Cellco Partnership (doing business as Verizon Wireless, and which includes as a minority partner affiliates of Vodafone Group Plc). Verizon Communications Inc. or one of its subsidiary companies is an assignee of record of the present application.

II. RELATED APPEALS AND INTERFERENCES

Applicants (hereinafter "Appellants") are not aware of any related appeals or interferences that would affect the Board's decision on the current appeal.

III. STATUS OF CLAIMS

Claims 1, 3-12, 14-18, 21-34, 36, and 41-62 are pending. Claims 1, 18, 27, 41, 46, 48, 53, 54, 56, and 59 are independent claims. Claims 2, 13, 19-20, 35, and 37-40 were canceled. No claims have been reversed. Pending claims 1, 3-12, 14-18, 21-34, 36, and 41-62 are the subject of this appeal, and are reproduced in an Appendix to this brief.

IV. STATUS OF AMENDMENTS

Appellants did not make, and the Examiner did not enter, any amendments to the application subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following is a concise explanation of the subject matter defined in at least each of the independent claims involved in the appeal, as required by 37 C.F.R. § 41.37(c)(1)(v). The following explanation is not intended to be used to construe the claims, which are believed to speak for themselves. Nor do Appellants intend the following explanation to modify or add any claim elements, or to constitute a disclaimer of any equivalents to which the claim would otherwise be entitled. Nor is any reference to certain preferred embodiments herein intended to disclaim other possible embodiments.

This summary of the presently claimed subject matter indicates certain portions of the specification (including the drawings) that provide examples of embodiments of elements of the claimed subject matter. It is to be understood that other portions of the specification not cited herein may also provide examples of embodiments of elements of the claimed subject matter. It is also to be understood that the indicated examples are merely examples, and the scope of the claimed subject matter includes alternative embodiments and equivalents thereof. References herein to the specification are thus intended to be exemplary and not limiting.

A. Claim 1

Claim 1 recites a method comprising:

receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination (e.g., Specification, page 14, line 27 – page 15, line 1; page 15, line 27 – page 16, line 12; Figure 3);

establishing a communication path from said local link through a concentrator network in said line unit (e.g., Specification, page 22, lines 2-11);

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit (e.g., Specification, page 15, lines 20-31; page 20, lines 10-26);

using said detector to identify a data sequence generated by said terminal (e.g., Specification, page 20, line 27 – page 21, line 13);

determining based on said data sequence that said request does not seek conversion in said line unit (e.g., Specification, page 21, line 10 – page 22, line 11); and

responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network (e.g., Specification, page 21, line 10 – page 22, line 11).

B. Claim 18

Claim 18 recites a method comprising:

receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination (e.g., Specification, page 14, line 27 – page 15, line 1; page 15, line 27 – page 16, line 12; Figure 3);

establishing a communication path from said local link through a concentrator network in said line unit (e.g., Specification, page 22, lines 2-11);

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit (e.g., Specification, page 15, lines 20-31; page 20, lines 10-26);

using said detector to identify a data sequence generated by said terminal (e.g., Specification, page 20, line 27 – page 21, line 13);

detecting, based on said data sequence, that said request seeks bandwidth in excess of that available through said line unit (e.g., Specification, page 21, lines 16-20; page 21, line 31 – page 22, line 22; and

responsive to said detection connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network (e.g., Specification, page 21, line 10 – page 22, line 11).

C. Claim 27

Claim 27 recites a method comprising:

receiving, from a customer premises via a local link, a signal at a program controlled switch associated with a line unit in a telecommunications network (e.g., Specification, page 14, line 27 – page 15, line 1; Figure 3.);

scanning said local link at said switch associated with said line unit to provide monitoring of said signal (e.g., Specification, page 15, lines 20-31; page 20, lines 10-26);

making a determination, via a monitor, regarding a pre-established characteristic of said signal (e.g., Specification, page 15, line 20 – page 16, line 12);

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device (e.g., Specification, page 18, line 5 – page 19, line 3.).

D. Claim 41

Claim 41 recites for a switched telecommunications network comprising trunked together program controlled switches connected to subscriber premises by local links connected to the line unit (e.g., Specification, page 6, line 21 – page 7, line 8), said line unit comprising:

a line concentrator network for connection to a plurality of local links, said concentrator network including switches, and a high bandwidth port (e.g., Specification, page 8, lines 1-16);

customer interface hardware (e.g., Specification, page 8, lines 1-8);

a converter for converting signals on the plurality of local links to digital signals at a predetermined narrowband bit-rate (e.g., Specification, page 13, lines 15-20);

a scanning device that is configured to sequentially connect to at least one of said plurality of local links (e.g., Specification, page 15, lines 20-31; page 20, lines 10-26); and

a monitor in communication with said scanning device, wherein the monitor is configured to, upon detecting a pre-designated signal on a local link connected within said sequence, generate an output signal to said concentrator network to cause said concentrator network to provide a connection to said port for signals on said link (e.g., Specification, page 21, line 22 – page 22, line 11; Figure 3).

G. Claim 46

Claim 46 recites a line unit for selective connection of a local link to a digital switch of a telephone network and a broadband data network (e.g., Specification, page 6, line 21 – page 7, line 8), the line unit comprising:

a switch for connection to the local link, the switch comprising a first port for a narrowband communication and a second port for connection to the broadband data network (e.g., Specification, page 6, line 21 – page 7, line 8);

the switch further configured for scanning each of a set of local links (e.g., Specification, page 20, lines 10-26);

the switch further comprising a controller for controlling the scanning (e.g., Specification, page 20, lines 22-29); and

a monitor means for detecting a request for a broadband service, the monitor being in selective communication with the controller to monitor at least one of the set of local links and in response controlling the switch to connect the local link to the second port (e.g., Specification, page 21, line 22 – page 22, line 11; Figure 3).

E. Claim 48

Claim 48 recites a line unit comprising:

a switch for connection to a first local link, the switch comprising a first port for a narrowband communication and a second port for connection to the broadband data network (e.g., Specification, page 6, line 21 – page 7, line 8);

a channel circuit, coupled to the first port, for channeling signals for communication via the first local link and a predetermined digital rate channel corresponding to the narrowband communication (e.g., Specification, page 13, lines 2-20); and

a monitor including a scan point switch matrix with controller configured to selectively monitor the first local link in a set of local links (e.g., Specification, page 20, line 27 – page 21, line 9);

wherein the monitor detects a broadband service request on the first local link, and in response, controls the switch to connect the first local link to the second port (e.g., Specification, page 21, line 22 – page 22, line 11; Figure 3).

F. Claim 53

Claim 53 recites a method comprising:

receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination (e.g., Specification, page 14, line 27 – page 15, line 1; page 15, line 27 – page 16, line 12; Figure 3);

establishing a communication path from said local link through a concentrator network in said line unit (e.g., Specification, page 22, lines 2-11);

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit (e.g., Specification, page 15, lines 20-31; page 20, lines 10-26);

using said detector to identify a data sequence generated by said terminal (e.g., Specification, page 21, line 10 – page 22, line 11);

detecting, based on said data sequence, that said request seeks bandwidth in excess of that available through said line unit (e.g., Specification, page 21, lines 16-20; page 21, line 31 – page 22, line 22);

responsive to said detection connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network (e.g., Specification, page 21, line 10 – page 22, line 11); and

signaling a central processing unit (CPU) controlling said telephone network switch to effect an entry in a journal of said telephone network switch, and using said entry for billing for the communications path set up in response to said requesting step (e.g., Specification, page 19, line 5 – page 20, line 7).

G. Claim 54

Claim 54 recites a method comprising:

receiving, from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone network, a request for a communication path to a destination (e.g., Specification, page 14, line 27 – page 15, line 1; page 15, line 27 – page 16, line 12; Figure 3);

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit (e.g., Specification, page 22, lines 2-11);

using said detector to identify a data sequence generated by said terminal (e.g., Specification, page 20, line 27 – page 21, line 13);

determining based on said data sequence that said request does not seek conversion in said line unit (e.g., Specification, page 21, lines 16-20; page 21, line 31 – page 22, line 22); and

responsive to said determination, connecting said terminal through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network, wherein said connecting step through a portion of said line unit around a converter therein to a wide band switch is a virtual hard wired connection (e.g., Specification, page 18, line 5 – page 19, line 3).

H. Claim 56

Claim 56 recites a method comprising:

receiving a signal via a local link from customer premises in a telecommunications network connected by said local link to a program controlled switch in said telecommunications network (e.g., Specification, page 14, line 27 – page 15, line 1.);

wherein the program controlled switch is configured for scanning each of a set of local links (e.g., Specification, page 20, lines 22-31);

scanning said local link with the program controlled switch to provide monitoring of said signal (e.g., Specification, page 20, lines 22-31);

making a determination, via a monitor, regarding a pre-established characteristic of said signal (e.g., Specification, page 15, line 20 – page 16, line 12; page 21, lines 4-9); and

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device, wherein said solid state switching comprises cross-point switching, wherein said cross point switching is performed in a line unit in said telecommunications network, wherein said cross-point switching directs said signal away from a two-way digital/analog converter in said line unit having predetermined narrowband digital bit-rate capabilities (e.g., Specification, page 18, line 5 – page 19, line 3).

I. Claim 59

Claim 59 recites a method comprising:

receiving a signal via a local link from customer premises in a telecommunications network connected by said local link to a program controlled switch in said telecommunications network (e.g., Specification, page 14, line 27 – page 15, line 1);

wherein the program controlled switch is configured to scan each of a set of local links (e.g., Specification, page 20, lines 22-31);

scanning said local link to provide monitoring of said signal (e.g., Specification, page 20, lines 22-31);

making a determination, via a monitor, regarding a pre-established characteristic of said signal (e.g., Specification, page 15, line 20 – page 16, line 12; page 21, lines 4-9); and

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device, wherein said processor is separate from said wide band edge device, wherein said processor performing said digital signal processing is associated with a line unit through a portion of which said signal is conducted (E.g., Specification, page 18, line 5 – page 19, line 3).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Final Office Action set forth the following grounds for rejecting Appellants' claims, which grounds are to be reviewed in this appeal:

1. Claims 27, 32-34, 36, 46, 47, 54, and 59-61 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Number 6,035,020 ("Weinstein").

2. Claims 1, 3-7, 9-12, 15, 17, 18, 21-26, 28-30, 41-45, 56, and 58 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Weinstein in view of United States Patent No. 5,692,043 ("Gliga").

3. Claim 8 was rejected under Section 103 as allegedly unpatentable over Weinstein and Gliga and further in view of United States Patent No. 5,085,913 ("Wong").

4. Claims 14 and 53 were rejected under Section 103 as allegedly unpatentable over Weinstein and Gliga and further in view of United States Patent No. 6,083,280 ("Eitel").

5. Claims 16 and 57 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of Gliga and United States Patent No. 6,480,487 (Wegleitner).

6. Claims 31 and 55 were rejected as obvious over Weinstein in view of Wegleitner. Claims 48, 51, 52, and 62 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of U.S. Patent No. 6,163,599 (McHale).

7. Claims 48, 51, 52, and 62 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of U.S. Patent No. 6,163,599 (McHale).

8. Claims 49 and 50 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of Gliga and Wegleitner.

VII. ARGUMENT

A. Ground of Rejection No. 1 (Claims 27, 32-34, 36, 46, 47, 54, and 59-61)

Claims 27, 32-34, 36, 46, 47, 54, and 59-61 were rejected under Section 102(e) as allegedly anticipated by Weinstein. At least for the following reason, the rejection of these claims must be reversed.

1. Independent Claim 27

Independent claim 27 recites in part "scanning said local link at said switch associated with said line unit to provide monitoring of said signal." Weinstein does not teach or suggest at least the foregoing recitation of claim 27. The Examiner asserted that the "scanning said local link at said switch" was anticipated by Weinstein's switch 120, stating that "[s]witch 120 acts as a scanning device since it selectively connects either PC 122 or other devices 121 from the local link to the signal detector." (Office Action, page 2.) However, Weinstein discloses switch 120 within a subscriber premises, stating that "a subscriber switch 120 connects the subscriber line 110 to a personal computer (PC) with a modem or to other devices, such as a telephone or a facsimile machine." (Weinstein, col. 4, lines 17-19). Further, Weinstein states that, "[t]ypically, the switch 120 is built into PCs." (Weinstein, col. 4, lines 23-24). Therefore, Weinstein's switch at most connects devices from within the customer premises to a subscriber line at the customer location when a call is presented for switching (Weinstein, Fig. 1; col. 4, lines 15-23). Weinstein's switch does no more than perform a function of connecting, and does not perform any "scanning."

More specifically, Weinstein discloses at most a line card connected to a local link, and a switch 130 in the line card (Weinstein, Fig. 1-4). The switch is normally closed to the voiceband path. (Weinstein, col. 3, lines 24-25; col. 7, lines 40-41; col. 10, lines 17-23.) If Weinstein's DTMF receiver/data call prefixer isolates a data call dialing prefix then the switch is moved to the data call path position (Weinstein, col. 7, lines 36-40). No "scanning" occurs at all. Further, Weinstein's switch is within the customer premises as is clearly seen in Weinstein's Figure 1; therefore it cannot be "associated with said line unit."

The Examiner argued that Weinstein's switch 120 "acts as a scanning device since it selectively connects either PC 122 or other devices 121 from the local link . . . for monitoring."

(Office Action, page 19.) However, the Examiner's argument is flawed at least because, even if mere "monitoring" would read on the "scanning" recited in claim 27, which Appellants do not concede, Weinstein teaches at most a switch that is used to provide a connection, and does not disclose any monitoring.

Additionally, the Examiner contended that Weinstein's "switch 120 reads on a 'scanning device' since it performs the function of the scanning device that is claimed, which is to connect either PC 122 or other devices from the local link to the detector." (Office Action, pages 19-20.) As discussed above, "scanning" and "connecting" are simply not the same thing. The Examiner's rejection based on this premise should be reversed for this reason alone. Further, claim 27 does not recite "a scanning device," at all. Moreover, even if Weinstein's switch 120 performs the function of connecting computers or other devices in a customer premises to a local link, and even if claim 27 recites a switch that performs a similar function, such similarity between Weinstein's switch 120, and the "switch" recited in claim 27, is irrelevant to the requirements in claim 27 of "scanning said local link at said switch associated with said line unit to provide monitoring of said signal." As discussed above, Weinstein does not teach or suggest any device, or any function, related to the "scanning" recited in claim 27.

For at least the foregoing reasons, the rejection of claim 27 must be reversed.

2. Claim 46

a. "the switch further configured for scanning . . ."

Claim 46 recites in part "a switch for connection to the local link, the switch comprising a first port for a narrowband communication and a second port for connection to the broadband data network; the switch further configured for scanning each of a set of local links." The rejection of claim 46 must be reversed at least because the Examiner failed to point to any teaching or suggestion in Weinstein relevant to "the switch further configured for scanning each of a set of local links" (see Office Action, page 4) and therefore failed to state a *prima facie* case of anticipation.

Further, Weinstein's voice/data switch 130, alleged by the Examiner to read on the switch recited in claim 46 (Office Action, page 4), cannot be "configured for scanning each of a set of local links." Weinstein explains that his switch 130 is also known as a "call diversion switch" that is thrown, when appropriate, to handle data calls. (Weinstein, col. 5, lines 4-19.) Not only does

Weinstein not teach or suggest that his switch 130 is configured to perform any "scanning," but there is no possibility that Weinstein's throw switch could have been so configured. Further, the arguments above concerning the lack of "scanning" in claim 27 are also applicable with respect to claim 46.

Moreover, the Examiner's reasoning is flawed on its face because the Examiner stated that "switch 126 acts as a scanning device since it selectively connects either PC 122 or other devices 121 from the local link to the signal detector." (Office Action page 4.) Even if Weinstein's switch 120 does "selectively connect either PC 122 or other devices 121," such "selective connection" is not acting as "a scanning device;" making a connection is just that – nothing more than making a connection. At most, as discussed above – and the Examiner has alleged no more – Weinstein simply teaches a switch that provides a connection, not a switch that performs any scanning.

For at least these reasons, the rejection of claim 46, and claim 47 depending therefrom, should be reversed.

b. "the switch further comprising a controller for controlling the scanning"

Claim 46 further recites "the switch further comprising a controller for controlling the scanning." Not only is Weinstein's switch not "configured for scanning" as discussed above, but Weinstein does not teach or suggest any "controller for controlling the scanning." Further, while the Examiner has contended that Weinstein's switch 120 acts as a scanning device" the Examiner has failed to make a *prima facie* rejection of claim 46 for the further reason that the Examiner's rejection does not point to any element in Weinstein that reads on the recited "controller." (*See* Office Action, page 4.) For least this additional reason, the rejection of claim 46 must be reversed. Moreover, because Weinstein does not teach or suggest any device "configured for scanning," Weinstein cannot possibly teach or suggest a "controller for controlling the scanning."

In responding to Appellants' arguments, the Examiner did assert that "[t]he controller is switch 120 since it is connected to voice/data switch 130 and performs scanning." (Office Action, page 20.) As amply discussed above, Weinstein's switch 120 does not in fact perform any scanning. Moreover, Weinstein's switch 120 does not perform any controller functionality, nor does the Examiner even allege that it does. In sum, Weinstein does not teach or suggest any element "comprising a controller for controlling the scanning."

For at least these further reasons, the rejection of claim 46, and claim 47 depending therefrom, should be reversed.

3. Claim 54

a. "a request for a communication path to a destination"

Claim 54 recites in part "receiving, from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone network, a request for a communication path to a destination." The Examiner did not identify any specific element in Weinstein that allegedly reads on the recited "request for a communication path to a destination." (*See* Office Action, page 5.) For at least this reason, the rejection of claim 54 must be reversed.

Further, Weinstein does not teach or suggest the recited "request for a communication path to a destination." At most, Weinstein teaches concentrators that receive as inputs outputs from analog-to-digital converters, and that provide outputs to a voice switch 155. (Weinstein, column 5, lines 36-47.) In other words, Weinstein's concentrators simply receive inputs and provide outputs, but do not receive or provide a "request for a communication path to a destination."

The Examiner has asserted that "subscribers send a request for a communication path by dialing a telephone number of a destination." (Office Action, pages 21-22.) In their paper dated December 22, 2009, Appellants timely pointed out that the Examiner had newly taken Official Notice that the recited "request for a communication path to a destination" occurs when a telephone number is dialed. Appellants respectfully requested that the Examiner to provide support in a reference of record for the Official Notice in the next Office Action as required by 37 CFR 1.104(d)(2). However, in the Advisory Action dated February 2, 2010, the Examiner simply repeated that "a request for a communication path" was disclosed by "[s]ubscribers . . . request[ing] access through the network to a dialed destination." Thus, the Examiner has taken Official Notice, and has improperly failed to provide support for the Official Notice taken. At least because no reference of record teaches or suggests the recited "request for a communication path to destination" the rejection of claim 54, and also of claim 55 depending therefrom, must be reversed.

b. "from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone network"

As noted above, claim 54 specifically recites that the request is received "from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone

network." The Examiner has yet to address any of these elements, or to show that they are taught or suggested in Weinstein. (See Office Action, page 5, February 2, 2010 Advisory Action, Page 2.) Further, inasmuch as Weinstein does not even teach or suggest the "request" recited in claim 54, Weinstein cannot teach or suggest that the request is received "from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone network." The rejections of claims 54 and 55 must be reversed for at least this further reason.

c. "controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit"

Claim 54 further recites in part "controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit." However, Weinstein does not teach or suggest the foregoing recitation of claim 54 at least for the reasons set forth above, concerning claims 27 and 46. Therefore, the rejection of claim 54, and also of claim 55 depending therefrom, must be reversed for at least this further reason.

4. Claim 59

Claim 59 was rejected as anticipated by Weinstein on grounds similar to those set forth for claim 27. (Office Action page 6.) Therefore, even though claims 27 and 59 differ in scope, the rejections of claim 59, and the claims depending therefrom, must be reversed at least for the reasons provided above concerning claim 27.

B. Ground of Rejection No. 2 (Claims 1, 3-7, 9-12, 15, 17, 18, 21-26, 28-30, 41-45, 56, and 58)

1. Claim 1

a. "scanning said local link . . ."

Claim 1 was rejected as allegedly obvious under 35 U.S.C. § 103(a) over the alleged combination of Weinstein and Gliga. Claim 1 recites in part "controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit." The Examiner contended that Weinstein read on the foregoing recitation of claim 1. However, for at least the reasons stated above concerning claims 27 and 46, Weinstein fails to teach any "scanning," and the rejection of claim 1 must be reversed for at least this reason.

Further, the Examiner contended that "DTMF receiver 123 and prefix recognizer 125 in combination read on the detector." (Office Action, page 21.) However, the Examiner has never addressed Applicants' argument in their paper dated June 17, 2009 (page 17), that the DTMF receiver and the data call prefixer merely isolate the dialing prefix. As such, Weinstein's DTMF receiver and prefix recognizer do not perform any operations of a "detector, and do not read on the recited "detector." The Examiner simply contended that Weinstein's subscriber line 110 reads on the recited a local link, and that Weinstein's switch 120 is a scanning device that selectively connects a detector to said local link. The rejection of claim 1 must be reversed at least because the combination of Weinstein and Gliga does not teach or suggest any of "a scanning device," "a detector," or "a local link," much less that "the scanning device and detector are associated with said line unit."

b. "responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit . . ."

Claim 1 further recites in part "establishing a communication path from said local link through a concentrator network in said line unit," "determining based on said data sequence that said request does not seek conversion in said line unit," and "responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network." The Examiner has repeatedly asserted (Office Action, page 22; February 2, 2010, Advisory Action, page 2) that Weinstein somehow discloses all of the elements in the foregoing recitations of claim 1, except that Weinstein "just do[es] not disclose a concentrator network and said line unit," which is allegedly disclosed by Gliga. Yet, the Office Action (page 8) admits that "Weinstein et al do not disclose . . . establishing a communication path from said local link through a concentrator network in said line unit; and responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network." Thus, the Examiner has admitted that none of the cited references teach or suggest "connecting said communication path from said concentrator network through a portion of said line unit." Even under *KSR Int'l. Co. v. Teleflex, Inc.,* 550 U.S. 398 (2007), the Examiner must show that the cited references taken together disclose all of

Applicants' claim recitations, and also that there would have been some reason to combine the references, which the Examiner has not done.

The Examiner has not shown, or even alleged, that the cited references taken together disclose all of Applicants' claim recitations because the Examiner has alleged at most that a first reference, Weinstein, teaches connecting said communication path through a portion of said line unit, and that a second reference, Gliga, teaches a concentrator network. Even if the Examiner's allegations concerning the teachings of Weinstein and Gliga are correct, these allegations do not amount to "connecting said communication path from said concentrator network through a portion of said line unit." The rejection of claim 1 must be reversed for at least this reason.

Further, the Examiner alleged that "concentration is a form of economic switch design that provides only enough cross points to support a certain number of subscribers requiring service, which reduces system cost." (Office Action, page 22.) However, the Examiner did not provide any reason why one of ordinary skill would have used a "concentrator network" in the context of Applicants' claim, e.g., "responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network." Thus, the Examiner did not meet the burden of proving obviousness mandated by *KSR,* and the rejection of claim 1 must be reversed for this further reason.

For least foregoing reasons, the rejection of claim 1, and all claims depending therefrom, must be reversed.

2. Claim 18

Claim 18 was rejected over Weinstein and Gliga on grounds similar to those set forth for claim 1. Therefore, even though claims 1 and 18 differ in scope, the rejection of claim 18 and its dependent claims must be reversed at least for the reasons set forth above concerning claim 1.

3. Claim 41

Claim 41 was rejected over Weinstein and Gliga on grounds similar to those set forth for claim 1. For reasons similar to those stated above concerning claim 1, claim 41, and all claims depending therefrom, are patentable over the cited references. Further, claim 41 and its dependent claims are patentable over Weinstein for the following additional independent reasons.

a. "a scanning device that is configured to sequentially connect to at least one of said plurality of local links"

Claim 41 recites in part "a scanning device that is configured to sequentially connect to at least one of said plurality of local links." Weinstein does not teach or suggest "a scanning device," as stated above, and therefore for at least this reason does not teach or suggest "a scanning device that is configured to sequentially connect to at least one of said plurality of local links." Further, as discussed above, Weinstein's switch at most provides a connection. This connection is not taught or suggested to be provided "sequentially" or "to at least one of said plurality of local links."

In any case, the Examiner now states that Gliga is relied on "to teach the benefits of using a plurality of local links." (Office Action, page 23; February 2, 2010, Advisory Action, page 2.) However, claim 41 recites "a scanning device that is configured to sequentially connect to at least one of said plurality of local links." The Office Action entirely failed to address the recitation that the scanning device sequentially connects to at least one local link. In the February 2, 2010 Advisory Action Page 2), the Examiner stated that Gliga teaches "a concentrator that concentrates 700-100[0] telephone lines onto 120 channels." Assuming *arguendo* that the Examiner properly characterized Gliga, there is nonetheless no basis for the Examiner's conclusion that "[e]ach line unit 106 controls all the telephone lines so it can sequentially connect to each line depending on which line is in use." As the Examiner has admitted, Gliga teaches a concentrator, and nothing more. Gliga does not teach or suggest a "scanning device," much less any device, "that is configured to sequentially connect to at least one of said plurality of local links."

In short, sequentially connecting "to at least one of said plurality of local links" is not taught or suggested by either Weinstein or Gliga, either alone or in combination. For at least this further reason, the rejection of claim 41, and the claims depending therefrom, must be reversed.

b. "a monitor in communication with said scanning device, wherein the monitor . . . generate[s] an output signal to said concentrator network to cause said concentrator network to provide a connection to said port"

Claim 41 further recites in part "a monitor in communication with said scanning device, wherein the monitor is configured to, upon detecting a pre-designated signal on a local link connected within said sequence, generate an output signal to said concentrator network to cause said

concentrator network to provide a connection to said port for signals on said link." As argued above, the cited references do not teach or suggest either "a monitor," or a "scanning device."

Further, the Examiner alleged, without basis that detecting a dialed telephone number reads on generating "an output signal to said concentrator network to cause said concentrator network to provide a connection to said port." (Office Action, page 24.) Indeed, the Examiner failed to provide any teaching or suggestion in the cited references concerning providing "a connection to said port."

Moreover, at least for reasons stated above, Gliga does not teach or suggest the recitations of claim 41 including a "concentrator network."

For at least the reasons discussed with respect to claim 1 as these additional reasons, the rejection of claim 41, and the claims depending therefrom, should be reversed.

4. Claim 56

Independent Claim 56 was rejected over Weinstein and Gliga on grounds similar to those set forth for claims 27, 28, 29, and 30. Therefore, even though claims 56 and 27, 28, 29, and 30 differ in scope, the rejection of claim 56 is patentable must be reversed at least for the reasons set forth above concerning claim 27.

C. Ground of Rejection No. 3 (Claim 8)

Claim 8 was rejected under Section 103(a) over Weinstein and Gliga and further in view of Wong. Claim 8 depends from claim 4, which in turn depends from claim 1. Therefore, the rejection of claim 8 must be reversed at least for the reasons set forth above concerning claim 1.

D. Ground of Rejection No. 4 (Claims 14 and 53)

Claim 14 depends from claim 1, and claim 53 is an independent claim. Claims 14 and 53 were rejected under Section 103(a) over Weinstein and Gliga and further in view of Eitel. The rejection of claim 14 must be reversed at least by reason of its dependence from claim 1. Further, the grounds for rejection claim 53 were similar in certain respects to the grounds for rejecting claim 1. Therefore, even though claims 1 and 53 differ in scope, the rejection of claim 53 must be reversed at least for the reasons set forth above concerning claim 1.

E. Ground of Rejection No. 6 (Claims 16 and 57)

Claims 16 and 57 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of Gliga and Wegleitner. Claim 16 depends from claim 1, and claim 57 depends from claim

56. The rejections of claims 16 and 57 should be reversed at least for the reasons provided above for the reversal of claims 1 and 56, respectively.

F. Ground of Rejection No. 7 (Claims 48, 51, 52, and 62)

Claims 48, 51, 52, and 62 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of McHale.

Claim 48 is an independent claim. Claim 48 was rejected over Weinstein and Gliga on grounds similar to those set forth for claims 46 and 47. Therefore, even though claims 46 and 47 and 48 differ in scope, the rejection of claim 48 must be reversed at least for the reasons set forth above concerning claim 46.

Claim 51 depends from claim 27. Claim 52 depends from claim 46. Claim 62 depends from claim 48. The rejections of claims 51, 52, and 62 should be reversed at least for the reasons provided above for the reversal of their respective base claims.

G. Ground of Rejection No. 8 (Claims 49 and 50)

Claims 49 and 50 were rejected under Section 103 as allegedly unpatentable over Weinstein in view of Gliga and Wegleitner. Claim 49 depends from claim 1. Claim 50 depends from claim 18. The rejections of claims 49 and 50 should be reversed at least for the reasons provided above for the reversal of their respective base claims.

CONCLUSION

In view of the foregoing arguments, Appellant respectfully submits that the pending claims are novel over the cited references. The Examiner's rejections of all pending claims are improper because the references do not teach or suggest each and every element of the claimed invention. In view of the above analysis, a reversal of the rejections of record is respectfully requested of this Honorable Board.

It is believed that any fees associated with the filing of this paper are identified in an accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 18-0013, under Order No. 65632-0140, from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136(a) is hereby made, the fee for which should be charged against the aforementioned account.

Dated: April 23, 2010

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APPENDIX A – CLAIMS APPENDIX

Pursuant to 37 C.F.R. § 41.37(c)(vii), the following listing provides a copy of the claims involved in this appeal.

1. A method comprising:

receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination;

establishing a communication path from said local link through a concentrator network in said line unit;

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit;

using said detector to identify a data sequence generated by said terminal;

determining based on said data sequence that said request does not seek conversion in said line unit; and

responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network.

3. A method according to claim 1, wherein said converter comprises a CODEC.

4. A method according to claim 1, wherein said concentrator network includes a switching system.

5. A method according to claim 4, wherein said switching system provides hard wired switching.

6. A method according to claim 4, wherein the switching in said switching system provides hard wired switching between said terminal and said wide band data switch.

7. A method according to claim 4, wherein said switching system is connected to a digital signal processor (DSP).

8. A method according to claim 4, wherein said switching system comprises gated-diode cross point (ODX) switching.

9. A method according to claim 4, wherein said switching system comprises cross point switching.

10. A method according to claim 7, wherein said digital signal processor is indirectly associated with said line unit.

11. A method according to claim 7, wherein said digital signal processor is directly associated with said wide band data switch.

12. A method according to claim 7, wherein said digital signal processor (DSP) is integrated with said line unit.

14. A method according to claim 1, further including the steps of: signaling a central processing unit (CPU) controlling a telephone network switch to effect an entry in a journal of said telephone network switch, and using said entry for billing for the communications path set up in response to said receiving step.

15. A method according to claim 1, wherein said connecting step through a portion of said line unit around a converter therein to a wide band switch is a virtual hard wired connection.

16. A method according to claim 1, wherein said connection to said wide band network is through an Asynchronous Transfer Mode (ATM) edge device.

17. A method according to claim 1, wherein said line unit comprises a line card.

18. A method comprising:

receiving, from a customer premises terminal via a local link to a line unit in a switched telephone network, a request for a communication path to a destination;

establishing a communication path from said local link through a concentrator network in said line unit;

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit;

using said detector to identify a data sequence generated by said terminal;

detecting, based on said data sequence, that said request seeks bandwidth in excess of that available through said line unit; and

responsive to said detection connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network.

21. A method according to claim 18, wherein said concentrator network of said line unit includes a switching system.

22. A method according to claim 21, wherein said switching system provides hard wired switching.

23. A method according to claim 21, wherein the switching in said switching system provides hard wired switching between said terminal and said wide band data switch.

24. A method according to claim 21, wherein said switching system is connected to a digital signal processor (DSP).

25. A method according to claim 24, wherein said digital signal processor is indirectly associated with said line unit.

26. A method according to claim 24, wherein said digital signal processor is directly associated with said wide band data switch.

27. A method comprising:

receiving, from a customer premises via a local link, a signal at a program controlled switch associated with a line unit in a telecommunications network;

scanning said local link at said switch associated with said line unit to provide monitoring of said signal;

making a determination, via a monitor, regarding a pre-established characteristic of said signal;

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device.

28. A method according to claim 27, wherein said solid state switching comprises cross-point switching.

29. A method according to claim 28, wherein said cross point switching is performed in said line unit.

30. A method according to claim 28, wherein said cross-point switching directs said signal away from a two-way digital/analog converter in said line unit having predetermined narrowband digital bit-rate capabilities.

31. A method according to claim 27, wherein said wide band network edge device is an Asynchronous Transfer Mode (ATM) edge device.

32. A method according to claim 27, wherein said digital signal processor is associated with said edge device.

33. A method according to claim 27, wherein said digital signal processor is separate from said wide band edge device.

34. A method according to claim 27, wherein said digital signal processor is associated with said line unit.

36. A method according to claim 34, wherein said digital signal processing is performed in an adaptive digital signal processor with a programmed controller providing coding and decoding functions adapted to a particular communication service requested by said signal and the physical level of signal protocol used over said local link from said customer premises.

41. A line unit for a switched telecommunications network comprising trunked together program controlled switches connected to subscriber premises by local links connected to the line unit, said line unit comprising:

a line concentrator network for connection to a plurality of local links, said concentrator network including switches, and a high bandwidth port;

customer interface hardware;

a converter for converting signals on the plurality of local links to digital signals at a predetermined narrowband bit-rate;

a scanning device that is configured to sequentially connect to at least one of said plurality of local links; and

a monitor in communication with said scanning device, wherein the monitor is configured to, upon detecting a pre-designated signal on a local link connected within said sequence, generate an output signal to said concentrator network to cause said concentrator network to provide a connection to said port for signals on said link.

42. A line unit according to claim 41, wherein said concentrator network comprises solid state switches.

43. A line unit according to claim 41, wherein the concentrator switches create a hard wired connection to said port for said link.

44. A line unit according to claim 41, wherein said line unit delivers said signals on said link to said port in unconverted format.

45. A line unit according to claim 41, including a digital signal processor with a programmed controller providing coding and decoding functions adapted to a service requested by the detected signal and the physical level protocol used over said local link.

46. A line unit for selective connection of a local link to a digital switch of a telephone network and a broadband data network, the line unit comprising:

a switch for connection to the local link, the switch comprising a first port for a narrowband communication and a second port for connection to the broadband data network;

the switch further configured for scanning each of a set of local links;

the switch further comprising a controller for controlling the scanning; and

a monitor means for detecting a request for a broadband service, the monitor being in selective communication with the controller to monitor at least one of the set of local links and in response controlling the switch to connect the local link to the second port.

47. A line unit as in claim 46, further comprising a channel circuit, coupled to the first port, for channeling signals for communication via the local link and a predetermined digital rate channel corresponding to the narrowband communication.

48. A line unit comprising:

a switch for connection to a first local link, the switch comprising a first port for a narrowband communication and a second port for connection to the broadband data network;

a channel circuit, coupled to the first port, for channeling signals for communication via the first local link and a predetermined digital rate channel corresponding to the narrowband communication; and

a monitor including a scan point switch matrix with controller configured to selectively monitor the first local link in a set of local links;

wherein the monitor detects a broadband service request on the first local link, and in response, controls the switch to connect the first local link to the second port.

49. A method according to claim 1, wherein the scanning device includes scan point matrix switches, and wherein the detector includes a signal processor and a controller.

50. A method according to claim 18, wherein the scanning device includes scan point matrix switches, and wherein the detector includes a signal processor and a controller.

51. A method according to claim 27, wherein the monitor includes scan point matrix switches, a signal processor and a controller, wherein the controller is located in the line unit.

52. A line unit as in claim 46, wherein the switch includes scan point matrix switches, the monitor means includes a signal processor, and wherein the controller is located in the line unit.

53. A method comprising:

receiving, from a customer premises terminal via a local link to a line unit and telephone network switch in a switched telephone network, a request for a communication path to a destination;

establishing a communication path from said local link through a concentrator network in said line unit;

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit;

using said detector to identify a data sequence generated by said terminal;

determining based on said data sequence that said request does not seek conversion in said line unit;

responsive to said determination, connecting said communication path from said concentrator network through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network; and

signaling a central processing unit (CPU) controlling said telephone network switch to effect an entry in a journal of said telephone network switch, and using said entry for billing for the communications path set up in response to said requesting step.

54. A method comprising:

receiving, from a customer premises terminal a local link to a line unit and telephone network switch in a switched telephone network, a request for a communication path to a destination;

controlling a scanning device to selectively connect a detector to said local link, wherein the scanning device and detector are associated with said line unit;

using said detector to identify a data sequence generated by said terminal;

determining based on said data sequence that said request does not seek conversion in said line unit; and

responsive to said determination, connecting said terminal through a portion of said line unit around a converter in said line unit to a wide band data switch connected to a data network, wherein said connecting step through a portion of said line unit around a converter therein to a wide band switch is a virtual hard wired connection.

55. A method according to claim 54, wherein said connection to said wide band network is through an Asynchronous Transfer Mode (ATM) edge device.

56. A method comprising:

receiving a signal via a local link from customer premises in a telecommunications network connected by said local link to a program controlled switch in said telecommunications network;

wherein the program controlled switch is configured for scanning each of a set of local links;

scanning said local link with the program controlled switch to provide monitoring of said signal;

making a determination, via a monitor, regarding a pre-established characteristic of said signal; and

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device, wherein said solid state switching comprises cross-point switching, wherein said cross point switching is performed in a line unit in said telecommunications network, wherein said cross-point switching directs said signal away from a two-way digital/analog converter in said line unit having predetermined narrowband digital bit-rate capabilities.

57. A method according to claim 56, wherein said wide band network edge device is an Asynchronous Transfer Mode (ATM) edge device.

58. A method according to claim 56, wherein said digital signal processing occurs in said edge device.

59. A method comprising:

receiving a signal via a local link from customer premises in a telecommunications network connected by said local link to a program controlled switch in said telecommunications network;

wherein the program controlled switch is configured to scan each of a set of local links;

scanning said local link to provide monitoring of said signal;

making a determination, via a monitor, regarding a pre-established characteristic of said signal; and

responsive to said determination, solid state switching said signal to a digital signal processor and a wide band network edge device, wherein said processor is separate from said wide band edge device, wherein said processor performing said digital signal processing is associated with a line unit through a portion of which said signal is conducted.

60. A method according to claim 59, wherein said line unit includes said processor.

61. A method according to claim 59, wherein said digital signal processing is performed in an adaptive digital signal processor with a programmed controller providing coding and decoding functions adapted to a particular communication service requested by said signal and the physical level of signal protocol used over said local link from said customer premises.

62. A line unit according to claim 48, wherein the monitor is configured to selectively monitor subsequent local links in a set of local links.

APPENDIX B - EVIDENCE APPENDIX

Not applicable – in this Appeal, Appellant does not rely on any evidence submitted pursuant to 37 CF.R.F. §§ 1.130, 1.131, or 1.132, or on any other evidence entered by the Examiner.

APPENDIX C - RELATED PROCEEDINGS APPENDIX

Not applicable – no related proceedings are referenced in Section II above; hence, copies of decisions in related proceedings are not provided.